

## MITIGATING MIGRATION THROUGH BRIDGING PRODUCTION GAP IN LIVESTOCK SECTOR

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Livestock productivity is one of the solutions to mitigate human migration from rural to urban areas. Livestock is the major contributor towards value addition in the agriculture sector and also in social build-up. It plays versatile role in rural life by providing food, income, employment, fuel, fertilizer, transportation and power. It has been serving as a source of income and food security for centuries. However, in present situation it is not playing its role as it could have. This field is deficient in production, management, marketing and information creating a big yield gap as compared to potential one. Less income leads to alternative strategies of livelihood for rural people, resulting migration to opt some other professions in cities. This migration creates a huge depression on urban resources including space, food and sanitation. Present paper focuses how to overcome migration through increasing livestock production and sustaining farmers at their villages to earn livelihood in a secure manner. All this inculcates towards encouragement of livestock farmers to carry on livestock farming inspite of migration. Present study was conducted in Tehsil Nankana Sahib. Out of its 34 rural union councils, four were selected randomly. From each selected union council, three villages were selected randomly. From each selected village ten livestock farmers were selected by random sampling technique thereby making a sample size of 120 respondents. Data were collected through interview schedule and analyzed by Statistical Package for Social Sciences (SPSS) to draw conclusions. It was found that people were migrating towards cities due to many problems in the livestock sector. Migration is a problem which affects cities also. Proper steps need to be taken to address the issues of migration and people leaving up livestock farming.

**Keywords:** Mitigation, migration, production gap, livestock sector- Faisalabad

### INTRODUCTION

Migration is one of the serious global problems. As development takes place from agricultural to rapid industrial sector, large-scale migration of rural residents to towns and cities occurs. During this process, the growth rate of urban areas typically enhances the pace of overall population increase. About 29 percent of the world population was living in urban areas in 1950; this figure was 43 percent in 1990, and the estimated figure for the year 2000 is about 50. The population growth of big cities of Pakistan over the past two decades indicates that the problem of urbanization is mainly restricted to major cities and ultimately creating a considerable problem there.

Apart from big cities small towns were also over populated (Jan, 2008). This situation demands more food, shelter, and clothing. To fulfill human nutritional requirement livestock sector demands promotion. As it is a source of income and employment for rural masses. It also joins together with farming system as safety deposit for crucial circumstances (Upton, 2002). It is the only hope for the landless and poor farmers as it can raise their economic condition as well as living standards. Only need is to involve women in care and management of the livestock (Riasat *et al.*, 2014)

especially in dealing with ectoparasites (Desoky *et al.*, 2015). Pakistan has a huge population of livestock because of its favorable environment and unique geographical location. This population includes different breeds of buffaloes (Pakistan has the second largest buffalo population in the world), cattle, sheep, goats, horses, camels, asses and mules. Animals are used to perform many tasks like ploughing, land leveling, fodder chopping and water uplift. Moreover, they are also used as a rural transport (PBIT 2011).

Livestock has the enormous potential to reduce poverty. It provides livelihoods to more than two-thirds of the rural poor globally and to a considerable minority of the peri-urban poor. The poorest of the poor do not have livestock but if they can get animals, their livestock can help to start them along a pathway out of poverty (Holman *et al.*, 2005). It is a multipurpose sector; it fetches food, generates income, produces employment, gives fuel and fertilizer (animal dung), provides transportation and power and brings economic stability (Ali, 2007). In addition, it is a multidimensional source of income, as income could be generated by sale of milk and animals to meet the daily family needs, emergency needs and to buy agriculture inputs. Apart from these, income is also generated by the

sale of meat, bones, fat, blood, hairs and hides (Machicado *et al.*, 2012).

It is considered a sustainable source of income; sustainability refers to the continuous improvement of present without harming the future. As reported by Kuhlman *et al.* (2012) that sustainability is a concept that leads human beings towards such a betterment that is continuous, taking in consideration these three aspects; Social, Environmental and Economic i.e. a continuous improvement in the social, economic and environmental conditions. Rearing of animals also does the same with the social, economic and environmental conditions of poor farmers. It generates direct benefits to the poor farmers with an annual growth rate of 4-5 % (Kumar *et al.*, 2012).

When farmers have to face many problems regarding livestock practices, then they are not satisfied with this and tend to choose any other means of earning. They were facing problems like lack of awareness about recent advanced livestock management practices. Thus, they were migrating towards cities and opting for other means of earning. Due to issues and problems in livestock, they were not earning that much up to the potential of livestock sector. This results in poor economic condition and which leads to migration towards cities. The observable fact of internal migration has not been broadly researched in Pakistan, principally as a result of deficient in data. The Population Census was carried out last in 1998, after a gap of 17 years. It did not comprise information on the place of birth and so the direction of migration flows could only be calculated with significant errors. Therefore, Arif (2005) merged the information in the Census with the Pakistan Socio-Economic Survey 2001 and was able to show that approximately 40% of the migrants were rural to urban migrants and majority of the males (60%) quote economic reasons for migration. Memon (2005) evaluated the LFS, Census and Pakistan Household Integrated Survey for a district level study. Roughly 20% of the migrants were economic migrants.

Farooq *et al.* (2005) examined the determinants of internal migration in Faisalabad. Fifty percent of the respondents migrated due to financial reasons, 80% and 13% of the respondents were 'pushed' out of their place of origin due to poor monetary and educational opportunities, respectively. Landlessness was thus far another significant 'push' factor. Study was conducted to address the migration towards cities in the perspective of problems faced by livestock farmers. Objectives of the study were; to study the demographic characteristics of the respondents, ii) to determine the hindrances affecting livestock production, iii) to study yield gap among livestock productions, iv) to conclude poor livestock production born migration.

## MATERIALS AND METHODS

Tehsil Nankana Sahib was selected as the study area. This area is the major livestock producing area of the district, in

tehsil Nankana Sahib 64.3 % of the farmers own livestock that is much more than other two tehsils i.e. Shahkot (48.6%) and Sangla Hill (46.6%) (MICS 2008). Main source of income for small farmers is livestock. Livestock-production system is mostly mixed crop-livestock farming. Production systems of cattle and buffaloes are subsistence small-holding, market oriented small-holdings, rural commercial farms and peri-urban dairy farms. Tehsil Nankana Sahib comprises of 37 union councils. Out of total 37 union councils, 34 were rural union councils. Among them, four rural union councils were selected randomly. From each selected union council, three villages were selected randomly. From each selected village ten livestock farmers were selected by random sampling technique thereby making a sample size of 120 respondents. Taking in consideration the study objectives an interview schedule was developed in order to collect the required information from the respondents. To check the validity and reliability of interview schedule it was pretested on 20 respondents who were actively involved in livestock production practices. The researcher interviewed the respondents at their farm and home. Even though the interview schedule was prepared in English language but for the convenience of the respondents the interview schedule was translated in Urdu language and the researcher asked questions in Punjabi (local language) to ensure the maximum possible accuracy. While interviewing, the researcher tried his level best to create informal and friendly environment in order to obtain accurate data.

## RESULTS AND DISCUSSION

Data presented in Fig.1 shows that more than one half (57.5%) of the respondents were earning Rs. 5001- 10000 from their sale of milk and about one fourth of the respondents were earning 5000 or less than that and a considerable percentage (17.5 %) was earning more than 10000 per month. These findings are more or less similar to those of Gura (2008) who reported that 28.4 % of the farmers earning less than or equal to 5000 and 15.7 % of the farmers were earning more than 10000 rupees monthly from sale of milk. It is revealed from the data given in the Fig.2 that the annual income from sale of live animals of about one half (51.7%) of the respondents range from 50,000 rupees to 1,00,000 rupees about two fifth (40.8%) of respondents fall in the category whose annual income from sale of live animals were up to 50,000 rupees. These findings are more or less in line with those of Akhter *et al.* (2007) who reported that about one half of the respondents were earning hand some amount from the sale of live animals annually. The results of Fig. 1 and Fig. 2 can be interpreted in the context of migration that is a sound reason of it. Less income from livestock rearing triggers farmers to opt other occupations they convert their dream into reality through migration.

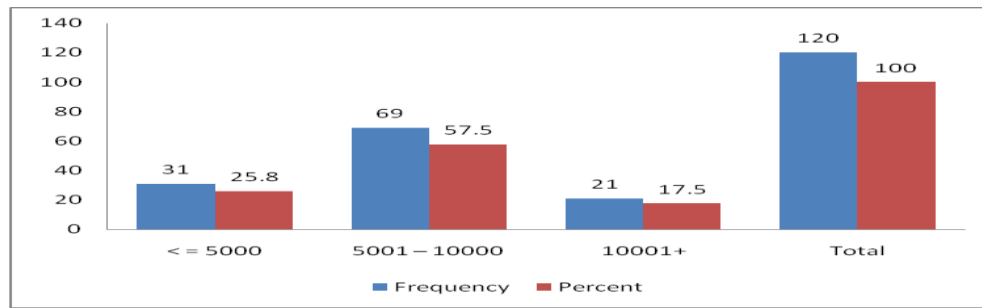


Figure 1: Distribution of respondents according to their monthly income from sale of milk

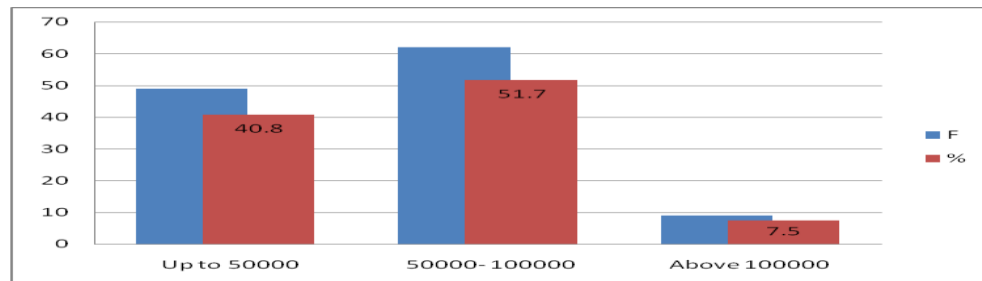


Figure 2: Distribution of respondents according to annual income from sale of live animal production

Table 1: Ranking of livestock extension services problems faced by the respondents

Problems	Mean	S. D	Weighted Score	Rank Order
Poor extension services	4.70	0.816	292	1
Less EFS field visits	4.64	0.696	277	2
Lack of technical knowledge	4.55	1.028	264	3
Poor information about modern livestock practices	4.53	0.987	262	4

*n*=120

According to the data presented in Table 1 show that problems regarding extension services got the top ranking with score 292, problem of less visits by extension field staff is at 2<sup>nd</sup> position with score 277, after that lack of technical knowledge at number 3<sup>rd</sup> (264) and poor information about modern livestock practices got the 4<sup>th</sup> position. Most of the respondents' complained that extension field staff never or once in a blue moon visited them as they owned small livestock herd. Extension agents used to visit only those farmers who had large herd size or some political influence. Moreover, it was observed that most of the respondents had taken care of their animals on

their own i.e. if an animal had been sick first of all they tried their traditional methods to treat the animal, veterinary doctor was called only when the condition of the animal was very crucial. Furthermore, there were no routine check-ups of the animals.

These findings are more or less in line with Aphunu *et al.* (2011) who reported that majority (75.7%) of the farmers complained that extension agent never came in contact with them. The conditions were same there at tehsil Nankana Sahib where livestock farmers were too much worried about the poor/lack of extension services and no/rare visit by Extension Field Staff.

Table 2: Ranking of financial problems faced by respondents

Problem	Mean	SD	Weighted Score	Rank Order
Lack of capital resources	4.18	0.987	297	1
Small herd size	3.94	0.990	277	2
Poor information about credit facilities	3.89	1.900	264	3
Non availability of credit facilities	3.69	2.513	261	4

*n*=120

The data given in the Table 2 depicts that lack of capital resources stood 1<sup>st</sup> with score 297 the problem which ranked 2<sup>nd</sup> (277) is the small herd size, after that poor information about credit facilities and non-availability of credit facilities. Moreover, it was observed that most of the farmers did not know about the credit facilities or have faulty information

about it. Mostly they fulfilled their credit needs by borrowing from relatives or fellow farmers. These findings are more or less similar to those of Kumar *et al.* (2012) who reported that lack of credit facility for livestock is the major problem faced by the 70 % of the farmers.

**Table 3: Ranking of livestock management problems faced by the respondents**

Problems faced by livestock farmers	Mean	S. D	Weighted Score	Rank Order
Lack/shortage of labor for milking the animals	1.75	1.023	292	1
Lack/shortage of land for housing the animals	1.53	0.850	277	2
Lack/shortage of vaccines	1.43	0.589	264	3
Control of parasites	1.41	0.558	262	4
Lack/shortage of water for washing/bathing animals	1.03	0.203	259	5

n=120

Data presented in Table 3 revealed that availability of labor is top ranked management problem with score 292, availability of land for proper housing of animals is the 2<sup>nd</sup> most important problem (277), availability of vaccines (264) and control of parasites (262) are ranked 3<sup>rd</sup> and 4<sup>th</sup> and the availability of water for washing/ bathing animals is ranked

last (259). Moreover, it was observed that now labor was not only becoming costly but running short at village level due to the migration trend towards cities. It was also observed that most of the respondents (especially with small herd size) were not paying considerable attention towards vaccination and control of parasites.

**Table 4: Ranking of livestock marketing problems faced by the respondents**

Marketing problems	Mean	SD	WS	Rank Order
Low rate of livestock and livestock products	4.73	0.567	387	1
Lack of proper markets	3.59	1.081	365	2
Marketing uncertainty	2.65	1.447	351	3
Broker's high commission	1.91	2.369	342	4

n=120

According to the data presented in Table 4 low rate (price) of livestock and livestock products got the highest ranked order with weighted score 387, lack of proper markets got the 2<sup>nd</sup> rank with score 365, after marketing uncertainty and broker's high commission were ranked 3<sup>rd</sup> and 4<sup>th</sup> with weighted score 351 and 342, respectively. No doubt livestock sector is a multi-purpose and emerging sector but this sector is facing many problems regarding marketing aspects. Most the respondents argued that they had to spend a lot on their animal in the form of time, money and labor but they didn't get the appropriate returns as the prices of livestock and livestock products are very low in comparison with inflation. Moreover they told that they fetch their animals with costly feed and fodder to sale them at Eid-ul-Azha but due to the lack of proper markets they did not get the good price. Usually, they sell their dairy animals among their fellow farmers of their own village or of the nearby villages. Broker's high commission got the last position in the Table 4 the reason was that most of the respondents were the direct seller of the milk to the consumers in nearby city i.e. Nankana Sahib. These findings are in line with

those of Francesconi (2009) to some extent, who reported that about 80% of the available milk in the market was marketed through unregulated and informal marketing channels. Only about 11 % of the dairy products were marketed through formal system. More or less similar results were produced by Mohamed *et al.*, (2004) who reported that informal market involved direct sale of fresh milk by producer to the consumer in the instant neighborhood and sale to wanderers in nearby towns.

## CONCLUSIONS

Livestock is the primary source of income of a majority of the farmers of the study area. It provides them nutritious food and healthy living, moreover, it is one of the powerful tools for poverty alleviation. Such farmers were facing many problems like lack of technical knowledge, lack of credit, adulteration and marketing issues. These problems were forcing them to migrate to cities and leaving up the livestock farming. Migration towards cities is alarming situation as there is not enough space and it is resulting in congestion in the cities. By improving livestock extension

services, providing necessary technical knowledge to livestock keepers, providing credit facilities and better marketing conditions, considerable development could be made in this sector. This will help in reducing migration towards cities and thus strengthening this sector and avoidance from problems caused due to migration in cities.

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